

REMARKS/ARGUMENTS

Claims 1, 3-4, 7, and 10-13 are pending upon entry of this amendment. Claim 1 has been amended. Claims 2, 5-6, and 8-9 have been canceled. No new matter has been added by the claim amendments.

Claims 1, 3-4, 7, and 10-13 stand rejected under 35 U.S. C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention.

Claims 1, 3-4, 7, and 10-13 stand rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement.

Claim Rejections - 35 U.S.C. §112

Section 4 of the Pending Office Action

In Section 4 of the pending Office action, claims 1, 3-4, 7, and 10-13 stand rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. The Examiner stated that it is not clear how the measured characteristic parameter will be both independent of the flow velocity (claim 1(b)) and simultaneously velocity dependent (claim 1(c)). As described below, the measurement of the characteristic parameter is dependent on the flow velocity, but the characteristic parameter itself is independent on the flow velocity.

As stated in the preamble of claim 1, the characteristic parameter of the analyte is independent of the flow velocity, but the measurement of the characteristic parameter of the analyte is dependent on the velocity of the analyte. As described on page 2 of the present specification, an exemplary characteristic parameter is fluorescence. Although the fluorescence is independent of the flow velocity, the measurement of the fluorescence does, in fact, depend on flow velocity. Embodiments of the present invention provide a method, for instance, of normalizing the measurement of the fluorescence to eliminate the velocity dependence present in the measurement and thereby determine the underlying characteristic parameter – in this example, fluorescence.

As recited in element (b) of claim 1, measurements of the characteristic parameter are made at a plurality of different detection zones. These measurements are influenced by or depend on the velocity of the analyte. Thus, it is logical that in element (c), the velocity dependence of the measurement of the characteristic parameter would be determined. Therefore, Applicants respectfully submit that claim 1 clearly recites that the characteristic parameter is independent of the flow velocity, but the measurement of the characteristic parameter is dependent on the flow velocity.

Regarding element (d) of claim 1, the pending claim has been amended to clarify that the measurement of the characteristic is normalized, not the characteristic parameter itself.

For at least these reasons, Applicants respectfully request that the rejection under Section 4 of the pending Office action be withdrawn.

Section 5 of the Pending Office Action

Claims 1, 3-4, 7, and 10-13 stand rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement. Applicants believe that the rejection under Section 5 is overcome based on the same discussion provided above in relation to Section 4. As amended, the claims clearly recite that the measurements are velocity dependent (and therefore normalized) to determine the velocity independent characteristic parameter. For at least these reasons, Applicants respectfully request that the rejection under Section 5 of the pending Office action be withdrawn.

Section 6 of the Pending Office Action

Applicants thank the Examiner for withdrawing the obviousness rejections over the prior art.

Applicants note that the references cited in the previous Office actions fail to teach or suggest at least the elements discussed above. In particular, both of the Kopf-Sill references (U.S. Patent No. 6,613,512 to Kopf-Sill et al. (the '512 patent) and U.S. Patent No. 6,524,790 to Kopf-Sill et al. (the '790 patent)) teach a characteristic parameter that depends on the flow velocity. As an example, the '512 patent discusses characteristics (e.g., reactant

concentration, product concentration, or reaction rates) that are dependent on the flow velocity. ('512 patent at col. 8, lines 2-10). Thus, the teaching of these references is in sharp contrast with the claimed invention, in which the characteristic parameter is independent of the flow velocity. Moreover, the other cited references, either considered alone or in combination, do not make up for these deficiencies in the Kopf-Sill references. Therefore, claim 1 is allowable over the cited references, either considered alone or in combination.

Claims 3-4, 7, and 10-13, which depend from claim 1, are in condition for allowance, for at least the reasons discussed in relation to claim 1, as well as for the additional elements they recite.

CONCLUSION

In view of the foregoing, Applicants believe all claims now pending in this Application are in condition for allowance and an action to that end is respectfully requested.

If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 650-326-2400.

Respectfully submitted,

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